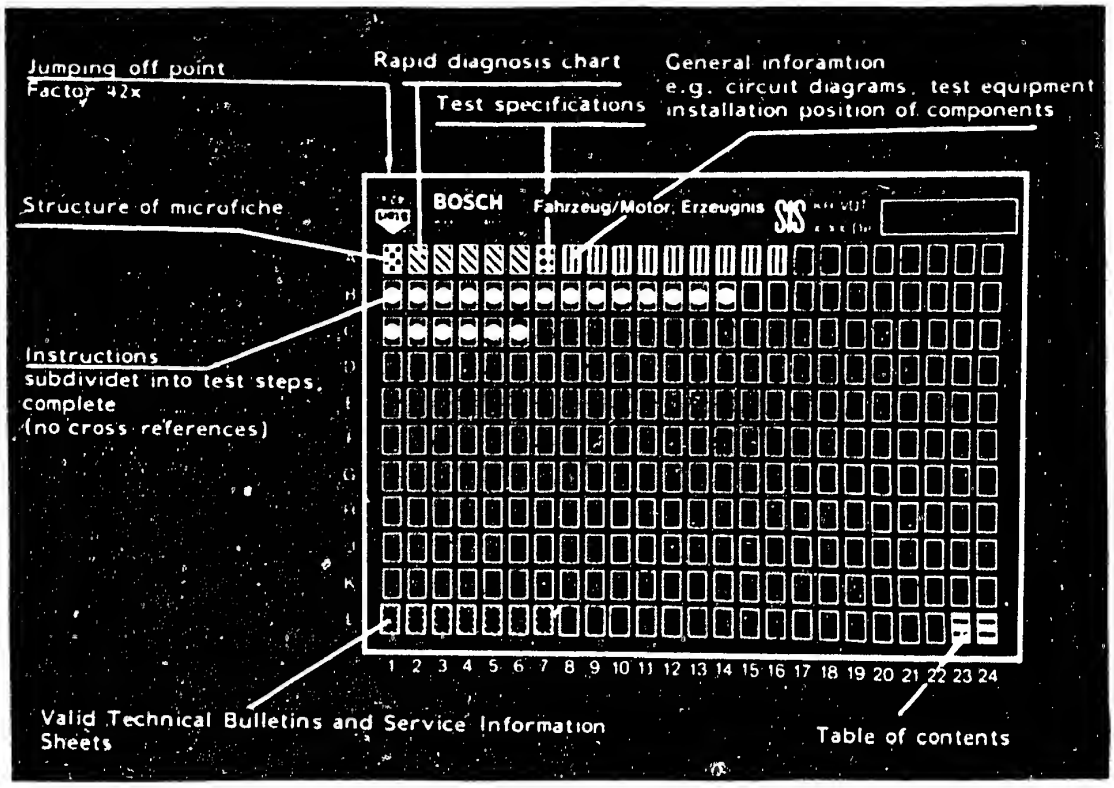
Structure of microfiche



1. Read from left to right

2. Title of microfiche (appears on each coordinate)

E16	Product/assembly/test step Vehicle/engine	

Coordinate

3. Limits of section

Beginning	Mid-section	End	One-page section

4. References to relevant test steps in test specifications; coordinate e.g. C6

C6

1. Rapid diagnosis chart

The following rapid diagnosis chart makes it possible for the experienced expert to quickly check the electrical/electronic part of the ignition system using normal workshop test equipment.

The rapid diagnosis chart contains the following information:

- Customer complaint
- Cause of the trouble
- Test instructions (if no coordinate given on the right, further possibilities for testing are indicated).
- Coordinates for detailed trouble-shooting.

If detailed information and instructions on trouble-shooting are necessary, always proceed according to the trouble-shooting program starting on coordinate B 1.

Rapid diagnosis chart

Customer complaint (symptom of trouble)

1. Starting motor operates, but engine fails to start
2. Rough idling
3. Poor throttle response
4. Engine lacks power
5. Misfiring
6. Fuel consumption too high
7. Engine pings when accelerating
8. Backfiring
9. Engine becomes too hot

1	2	3	4	5	6	7	8	9	Cause of trouble	Test instructions	Coordinates
●	●	●	●	●	●		●		Spark plugs defective	Assess using ignition oscillograms or remove spark plug and make visual examination.	---
●	●	●	●	●	●	●	●	●	Ignition timing incorrect	See Autodata test specifications	---
●	●	●	●	●					Shunt on secondary side	Assess ignition coil, ignition distributor, ignition harness and spark plug using ignition oscillogram or make visual examination	---
●	●	●	●	●					Open circuit on secondary side	Assess ignition coil, ignition distributor, ignition harness and spark plug using ignition oscillogram, or test for continuity using ohmmeter	---
●									Open circuit on primary side	Test voltage supply to trigger box and primary circuit.	C 1
●	●	●	●	●					Ignition coil defective	Make visual examination, electrical test.	B 6

Rapid diagnosis chart

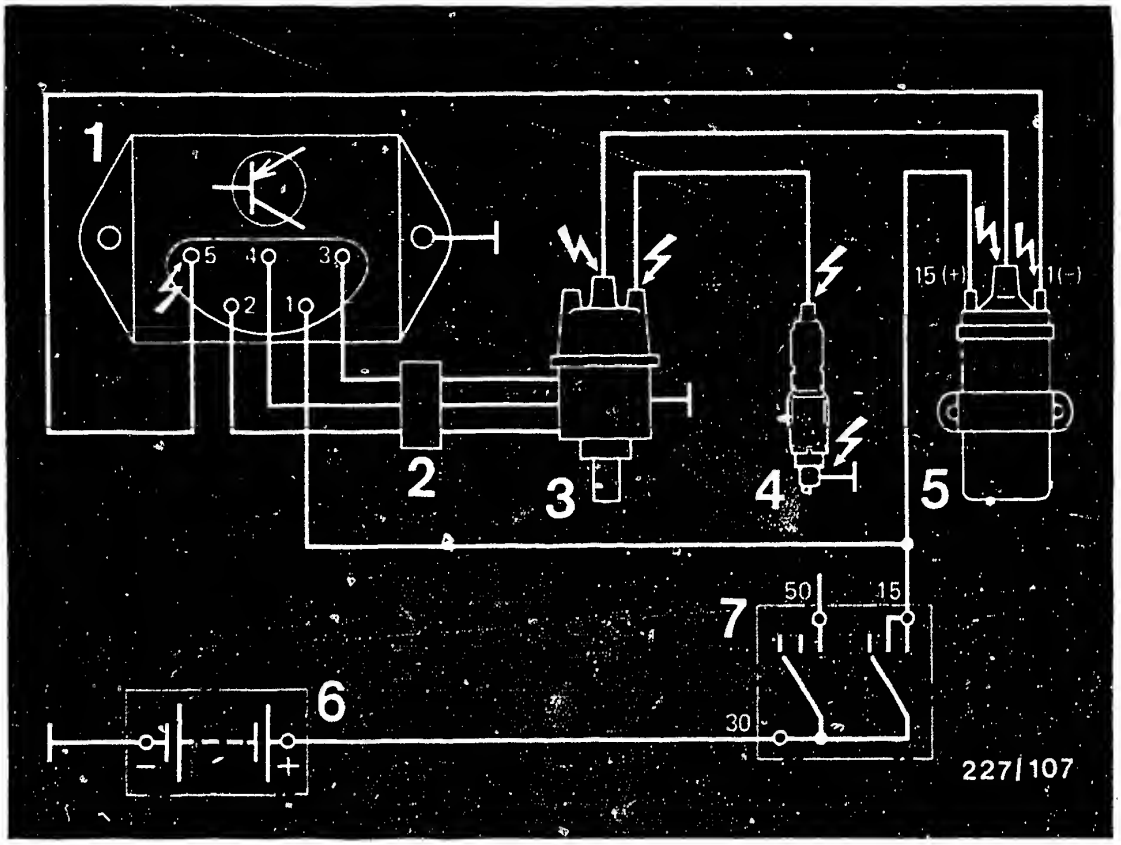
Customer complaint (symptom of trouble)

1. Starting motor operates, but engine fails to start	2. Rough idling	3. Poor throttle response	4. Engine lacks power	5. Misfiring	6. Fuel consumption too high	7. Engine pings when accelerating	8. Backfiring	9. Engine becomes too hot	Cause of trouble	Test instructions	Coordinates
		●	●	●	●				Interference-suppression resistors defective	Assess using ignition oscillogram or perform resistance measurement.	---
	●	●	●		●	●	●	●	Centrifugal advance defective	See Autodata test specifications	---
		●	●		●	●		●	Vacuum advance defective	See Autodata test specifications	---
●									Trigger box defective	Test peak-oil-current cut-off, primary voltage	B 12
●									Ignition distributor pickup system defective	Test ignition distributor pickup system. Test voltage supply and operation of magnetic pickup assembly.	C 5 C 7 C 9, C 10
●	●	●	●	●					Engine-speed limiter defective	Test cut-out speed, or perform visual examination.	---
●									Firing sequence incorrect	See Autodata test specifications	---

2. Test Specifications

Ignition-coil, primary	1.4...2.7Ω	B5
Ignition-coil, secondary	5.0...14.0 kΩ	
Voltage supply Trigger box	12...14 V	B11
Voltage supply Ignition coil	≥ 10 V	
Peak-coil-current switch-off		B12
approx. 1 s	approx. 5 V	
After 1 s	0 V	
Primary voltage with engine at idle	220...310 V	
Voltage supply	max. 3.0 V	C7
Ignition vane switch max.	less than U_B	

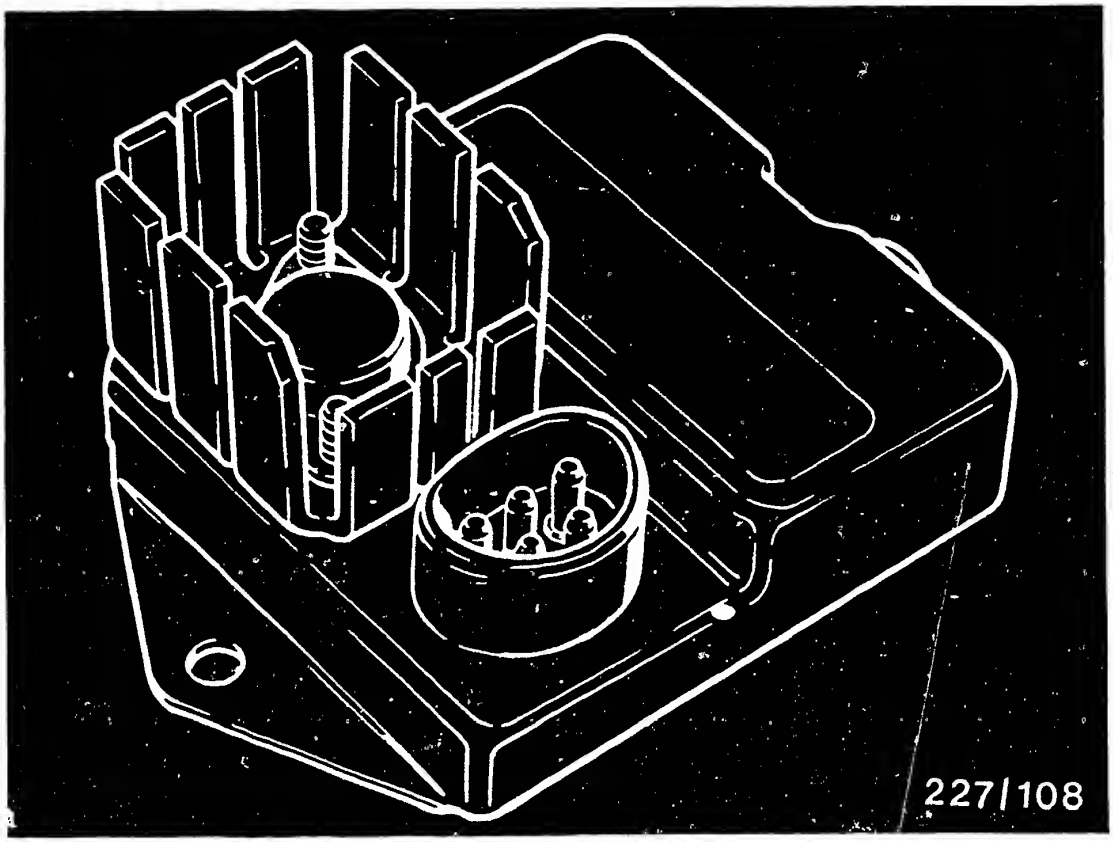
For adjustment specifications on ignition, idle speed, exhaust gas and valve clearances etc., refer to the Autodata Test Specifications.



1 = Trigger box
2 = Plug connector ignition distributor - trigger box
3 = Ignition distributor
4 = Spark plug
5 = Ignition coil
6 = Battery
7 = Ignition and starting switch

= Dangerous voltages (400 V - 25kV)

3. Electrical terminal diagram



TCI-h Trigger box

4. Installation position of components

The trigger box is in the engine compartment.

5. Necessary test equipment, aids

Motortester e.g.	MOT 201	0 684 000 201
Spark gap e.g. Ignition-coil and condenser tester or	EFAW 106 A	0 681 100 001
Single spark gap	EF 1177/7	1 684 531 000
5 kΩ sleeve-type suppressor		0 356 500 001
Ohmmeter or e.g.	ETE 014.00 Pontavi Wh2	0 684 101 400 Commercially available
Voltmeter e.g.	MOT 201	0 684 000 201
Test prods		Commercially available

6. Danger of accident on electronic ignition systems

Increased demands of modern engines on the ignition system combined with the desire for freedom of maintenance have recently led to electronic ignition systems being fitted as standard. Usually the ignition power of electronic systems (of almost all manufacturers) is higher than that of conventional systems, and there are signs of further increases in power. Electronic ignition systems thus reach a power range which can be highly dangerous if live parts or terminals are touched (both on the primary as well as the secondary sides).

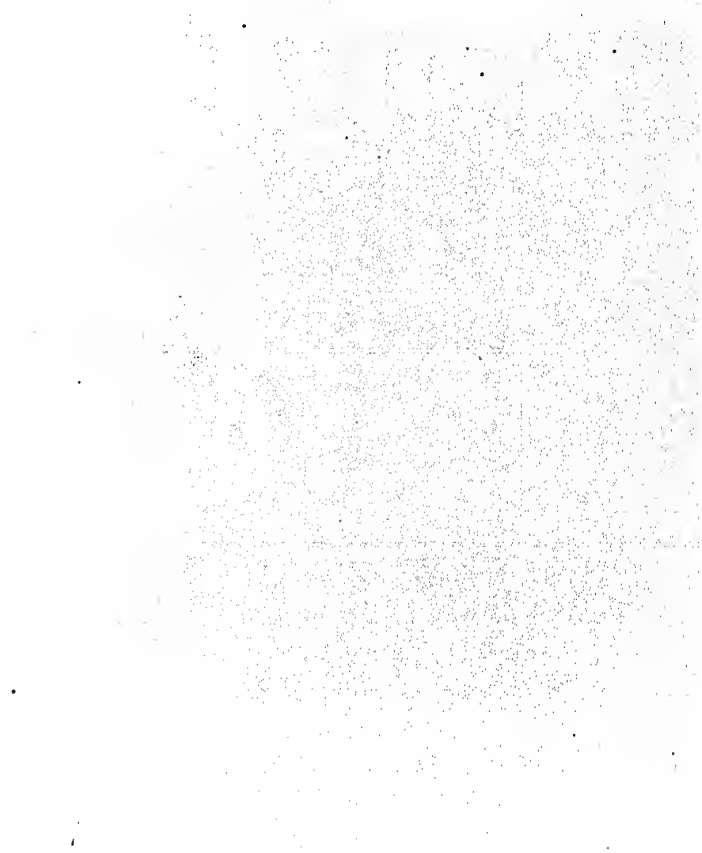
In this connection we should like to point out that the VDE regulations, in particular VDE 0104/7.67 and/or the respective national regulations must be followed when testing or working on the ignition system.

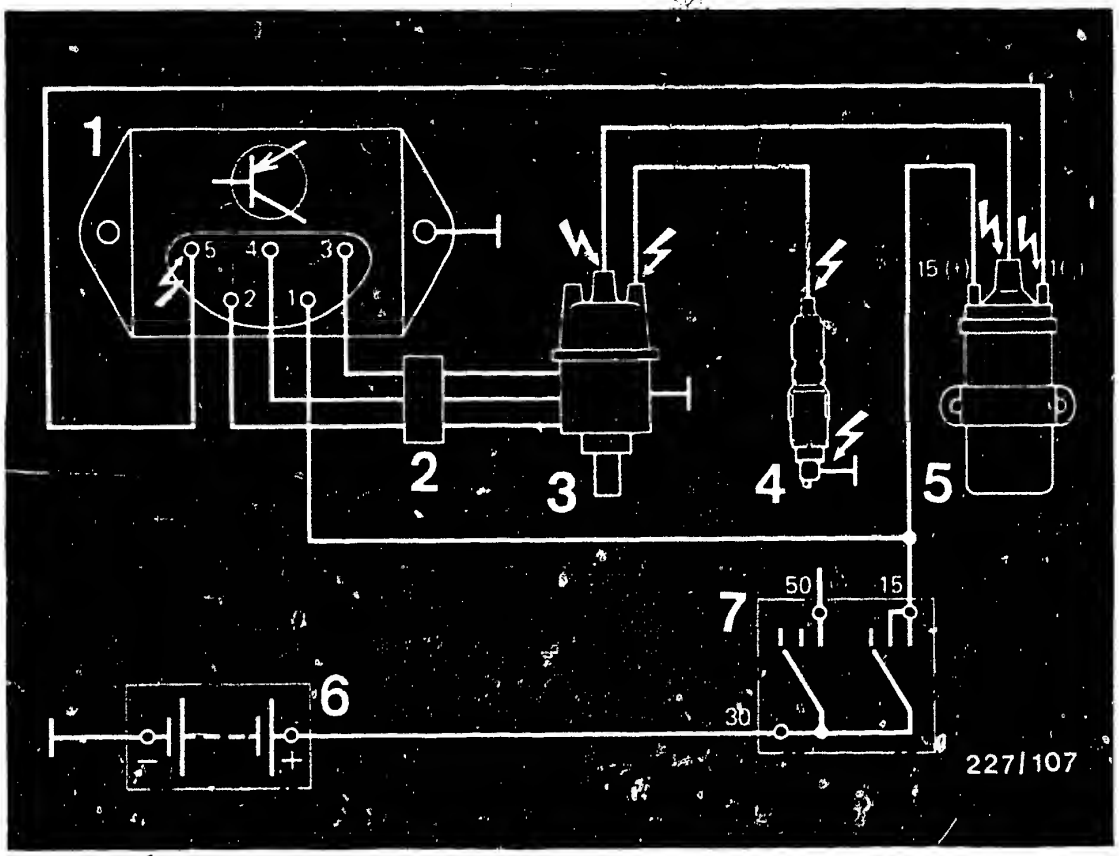
The ignition should always be switched off when working on the ignition system (switch off ignition or voltage source). Such work includes:

- Connecting of engine test equipment (timing light, dwell-tach tester, ignition oscilioscope, etc.).
- Replacing parts of the ignition system (spark plug, ignition coil, ignition distributor, H.T. ignition cable, etc.).

If, while testing the ignition system or during adjustment work on the engine (e.g. carburettor), it becomes necessary to switch on the ignition (switch on ignition or voltage source), the above-mentioned dangerous voltages occur over the entire system.

The danger of accident exists, therefore, not only on the individual assemblies of the ignition system (e.g. ignition distributor, ignition coil, trigger box, ignition harness), but also on the wiring harness (e.g. tachometer connection, diagnostic plug), at plug-in connections and test equipment.





1 = Trigger box
2 = Plug connection ignition distributor - trigger box
3 = Ignition distributor
4 = Spark plug
5 = Ignition coil
6 = Battery
7 = Ignition and starting switch Kl. = Terminal

⚡ = Dangerous voltages (400 V - 25 kV)

Electrical terminal diagram
The dangerous locations are marked with danger arrows taking the example of the terminal diagram of an electronic ignition system.

7. Important vehicle information

- Resistance measurements must only be performed with the ignition switched off or with the battery disconnected (measuring instrument defective).

- When testing compression, remove the trigger-box plug or firmly ground ignition coil terminal 4 using auxiliary cable (dangerous high voltage, insulation damage to ignition coil, ignition distributor, ignition harness).

  Note: Auxiliary cable must have at least 2 kΩ interference suppression, e.g. sleeve-type suppressor (5 kΩ) 0 356 500 001.

- The ignition coil prescribed (see part no.) must not be replaced by another ignition coil.

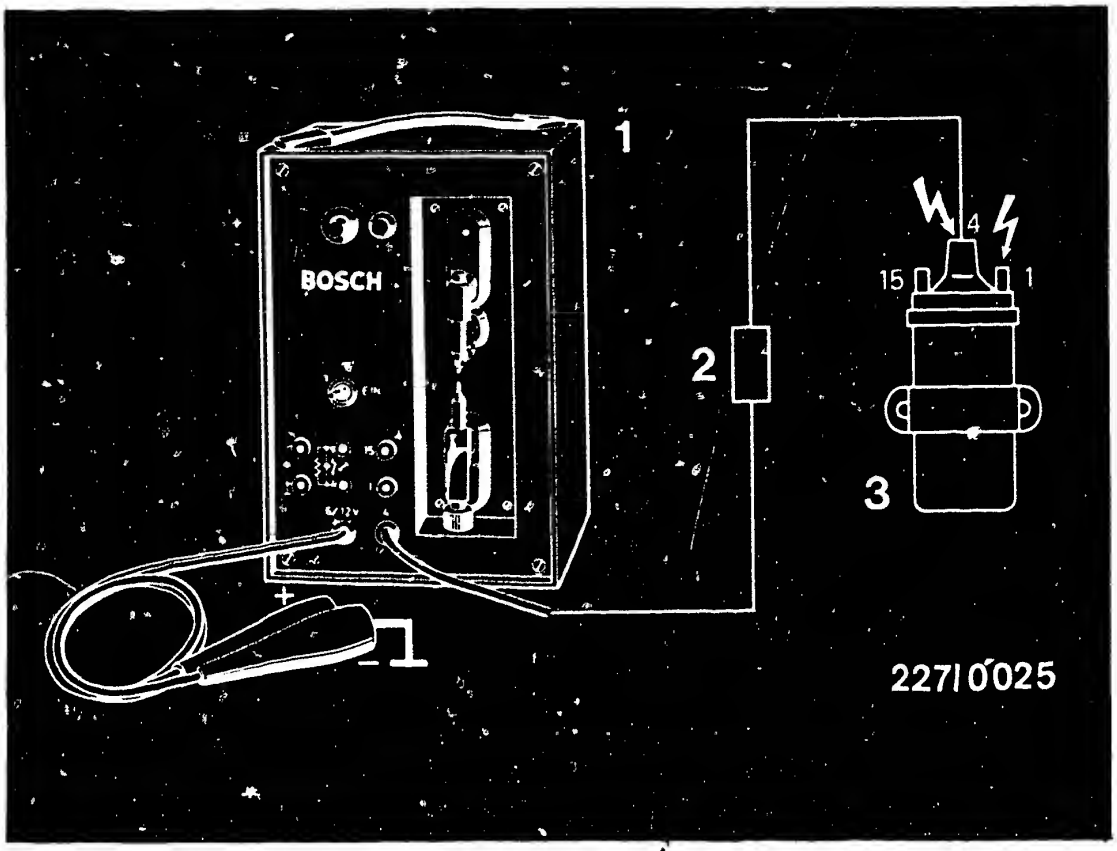
- No suppression capacitor must be connected to ignition coil terminal 1 and 15.

- Ignition coil terminal 1 must not be connected to ground for protection against theft (with "ignition on" the ignition coil will be destroyed).

- No battery positive terminal or test lamp must be connected to ignition coil terminal 1 (trigger box will be destroyed).

- The ignition cable from ignition coil terminal 4 to ignition distributor terminal 4 must not be disconnected during operation.

- There must be no voltage discharge from ignition coil terminal 4 to ignition coil terminals 1 and 15. The ignition vane switch and the trigger box could be destroyed.



1 = Spark gap
2 = 5 kΩ sleeve-type suppressor
3 = Ignition coil

= Dangerous voltages (400 V - 25 kV)

- In order to prevent the trigger box from being irreparably damaged, when using a spark gap, an interference-suppression resistor of at least 2 kΩ must be connected between the spark gap and ignition coil terminal 4, e.g. sleeve-type suppressor (5 kΩ) 0 356 500 001.

- No external voltage, e.g. ohmmeter, must be connected to the ignition distributor magnetic pickup assembly (Hall generator). Caution when switching over measuring ranges.

- The lines from the Hall generator to the trigger box must be laid separately from other lines. There must be at least 100 mm distance between Hall generator lines and the ignition cables and the line from terminal 1 of the trigger box to terminal 1 of the ignition coil (Hall generator will be destroyed).

- The holding springs of the distributor cap must not drop into the pickup system when the engine is being cranked and with the dust-protection cover removed.

- Insulation faults (leakage currents and/or punctures etc.) on the ignition-distributor cap can destroy the trigger box and the magnetic pickup assembly.

- Do not disconnect the battery while the engine is running.

- Incorrect battery polarity will lead to the destruction of the magnetic pickup assembly of the ignition distributor, trigger box and ignition coil.

- Do not use a starting aid with more than 16 V or a fast charger for starting.

8. Trouble-shooting program

Procedure

The trouble-shooting program is divided into 3 rows of boxes.

The left-hand row contains test instructions and test specifications.
The center row contains repair instructions.
The right-hand row contains the illustrations/terminal diagrams belonging to the text and the explanation of the items in the picture.

If the questions asked in the left-hand row can be answered conclusively with "Yes", then proceed to the next test down.

If the answer to the question is "No", branch to the center row and carry out the tests given there.

Before testing, make sure of the following:

Battery fully charged, fuel system O.K., engine mechanically O.K. (e.g. compression, valve clearance etc.).
Ambient temperature/ignition system temperature 0° to +100°C (temperature has a considerable effect on measured values).

Beginning of trouble-shooting program

Starting motor operates, engine fails to start or misfires or lacks power.

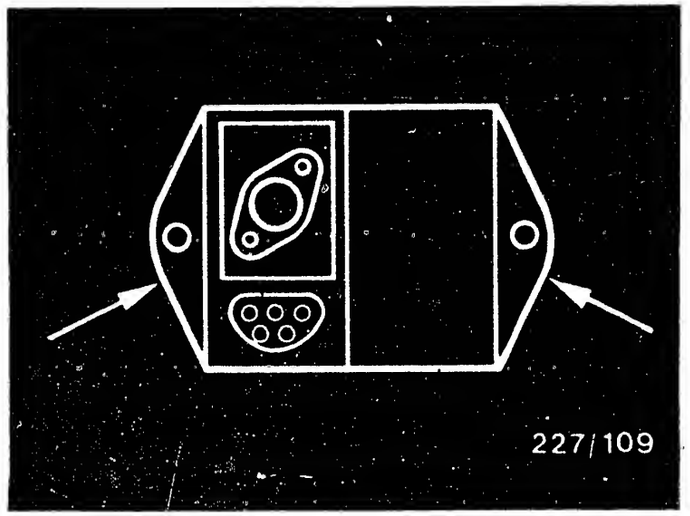
Yes

Test plug of DLS unit - if fitted.

Visual examination: Remove both plugs from DLS unit (see illustration) and check contacts for oxidation and secure fastening (remedy defects). Plug both plugs back onto the DLS unit. If customer complaint not remedied, continue testing.

Yes

Continued on B 4/5



Yes

Test primary signal. If no oscilloscope or tachometer available, check whether ignition spark across spark gap.

Primary signal testing with oscilloscope
Connect oscilloscope to ignition coil as per operating instructions.
Start engine.
Oscilloscope must indicate a primary voltage (of any value).

Primary signal testing with tachometer
Connect tachometer to ignition coil as per operating instructions.
Start engine.
Tachometer must indicate a reading (of any value).

Ignition spark testing with spark gap
Remove H.T. ignition cable term. 4 from ignition coil.
Connect spark gap including sleeve-type suppressor (5 kΩ) to ignition coil. Adjust spark gap to 5 mm.
Start engine.
There must be sparks across the spark gap.

Primary signal present or ignition sparks across spark gap?

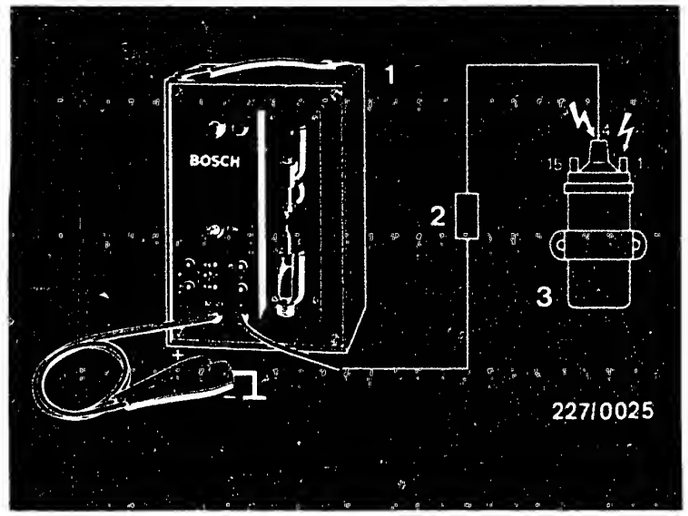
No →

If no primary signal or no ignition spark, continue testing at C 1.

Tests from B 7 onwards not necessary.

Yes

Continued on B 6/7



1 = Spark gap
2 = 5 kΩ sleeve-type suppressor
3 = Ignition coil

Dangerous voltages
approx. 400 V - 25 kV

Yes

Check distributor cap, distributor rotor, H.T. ignition cables and spark plugs.

High-tension side O.K.?

No → Repair high-tension side.

Yes

Test ignition coil.

Electrical test:
Ignition coil primary (terminals 15 and 1) 1.4...2.7 Ω (take resistance of test lead with test prods into account). Ignition coil secondary (terminals 1 and 4) 5.0...14.0 Ω.

Resistance values O.K.?

No → Replace ignition coil.

Yes

Continued on B 8/B 9

Yes

Engine running? — No → Disconnect negative and positive cables from battery. Remove trigger-box plug. Switch on ignition.

1. Check for contact resistance in cables from positive battery terminal to trigger-box plug term. 1 including cables from negative battery terminal to trigger box ground. Total contact resistance max. 0.3 Ω (take resistance of test lead with test prods into account).
   Eliminate contact resistance.

2. Check for contact resistance in cables from positive battery terminal to ignition coil term. 15 as well as in cable from ignition coil term. 1 to trigger-box term. 5.
   Total contact resistance max. 0.3 Ω (take resistance of test lead with test prods into account).
   Eliminate contact resistance.
   If the contact resistance in points 1 and 2 is less than 0.3 Ω, replace trigger box.

Yes

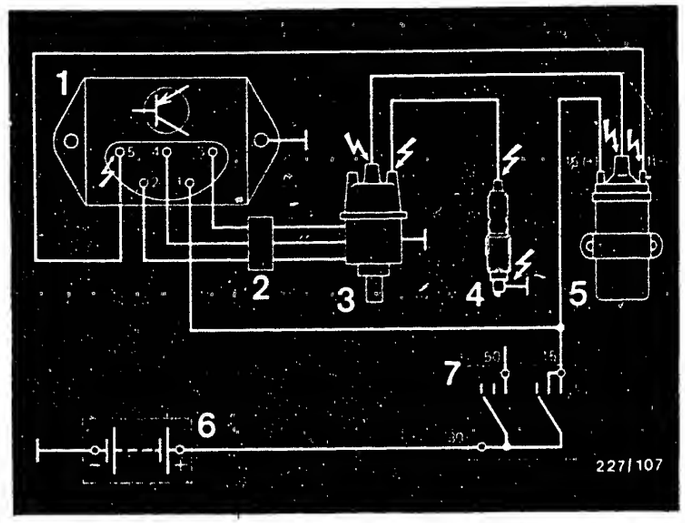
Check ignition-timing adjustment (Autodata test specifications).

(If indication of engine speed on tester is clearly incorrect, connect in series ballast resistor/convert motortester).

Adjustment correct? — No → Adjust ignition

Yes

Continued on B 11/12



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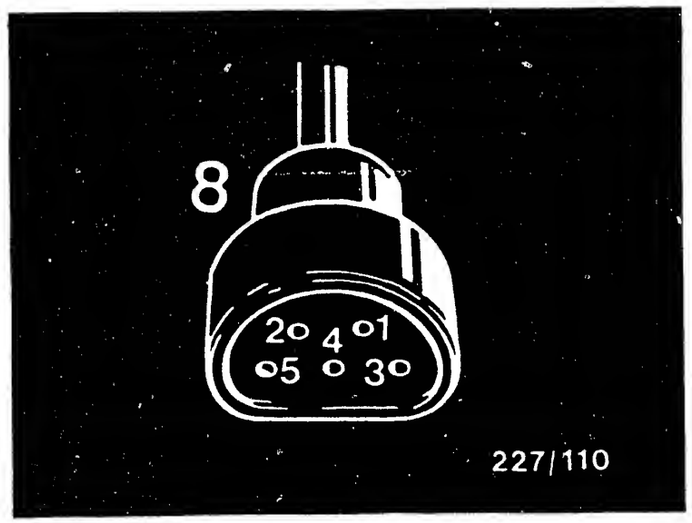
7 = Ignition and starting switch
8 = Trigger box plug

= Dangerous voltages (400 V - 25 kV)



Yes

Test trigger box voltage supply.
Push back rubber sleeve of trigger-box plug. Connect voltmeter with test prods to trigger-box plug term. 1 and trigger box ground. (Break through the cable insulation with the test prods).
Let engine idle.
Measured voltage must be 12...14 V and must be no more than 1 V below battery voltage.

Voltage correct?

No →

Disconnect negative and positive cables from battery. Remove trigger-box plug. Switch on ignition.
1. Check for contact resistance in cables from positive battery terminal to trigger-box plug term. 1 including cables from negative battery terminal to trigger-box ground. Total contact resistance max. 0.3 Ω (take resistance of test lead with test prods into account). Eliminate contact resistance.

Yes

Test ignition coil voltage supply.
Connect voltmeter to ignition coil term. 15 and negative battery terminal.
Let engine idle.
Measured voltage must be at least 10 V.

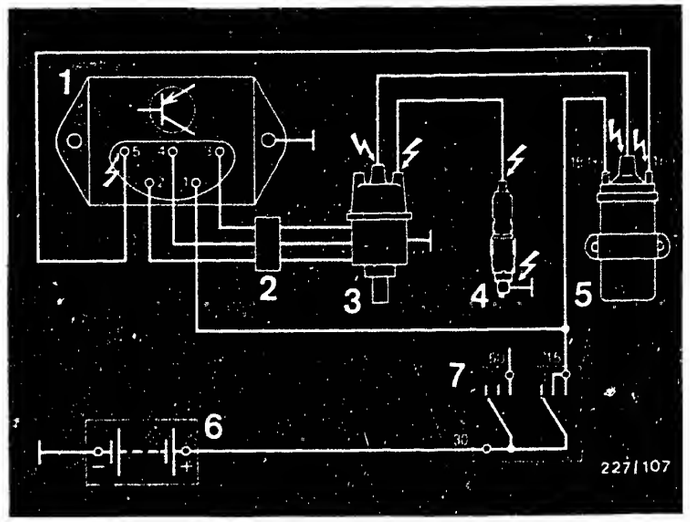
Voltage correct?

No →

Disconnect positive cable from battery.
Switch on ignition.
Check for contact resistance in cables from positive battery terminal to ignition coil term. 15.
Contact resistance max. 0.3 Ω (take resistance of test lead with test prods into account).
Eliminate contact resistance.

Yes

Continued on B 12/B 13



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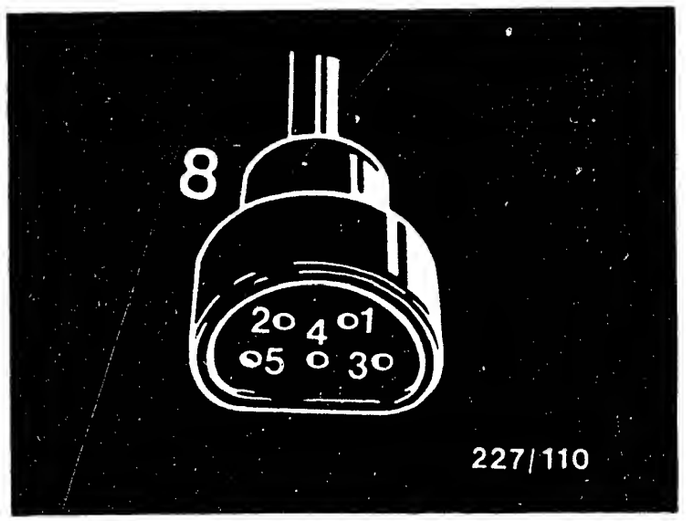
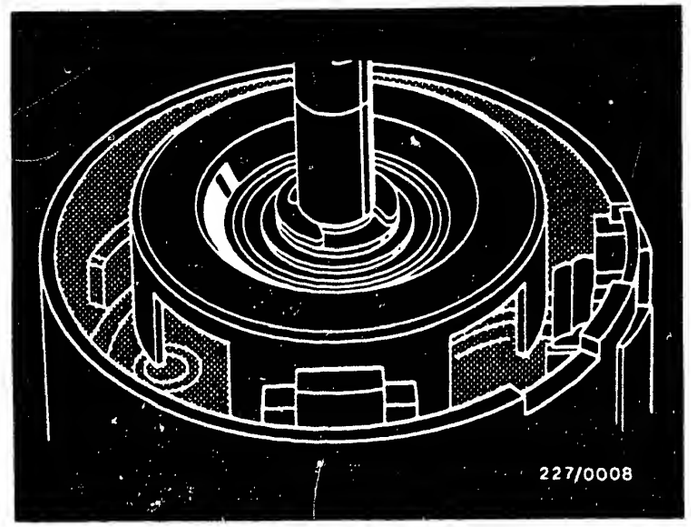


Yes

Test peak-coil-current cut-off. Connect voltmeter to ignition coil term. 15 and term. 1.
Remove distributor cap, distributor rotor and dust-protection cover.
Turn engine over by hand in direction of rotation until vane is completely in air gap of magnetic pickup assembly.
See illustration.
Switch on ignition.
Voltmeter deflects slightly (approx. 5 V) for approx. 1 sec. Voltmeter must return to 0 V.

Voltage (0 V) correct?

No → Replace trigger box and ignition coil.



Yes

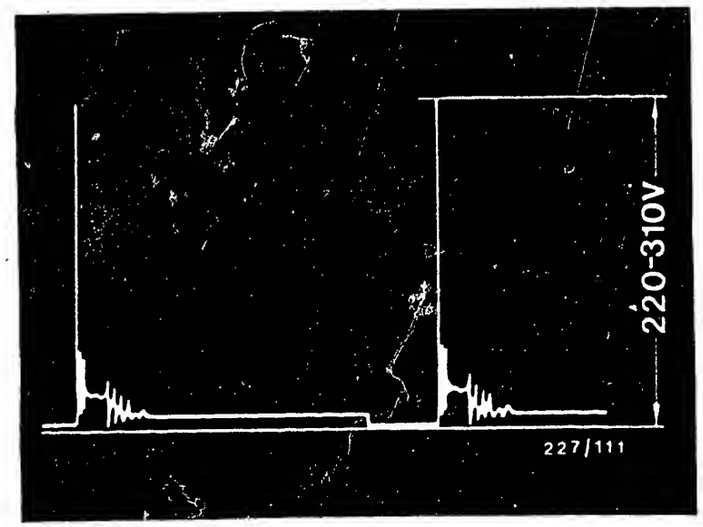
Test primary voltage.
(If MOT series available).
Connect oscilloscope (MOT 201) to ignition coil as per operating instructions.
Let engine idle.
Measured primary voltage must be 220...310 V.
See graph.

Voltage correct?

No → Replace trigger box.

Yes

Continued on B 14



Yes

Ignition sytem O.K.

Test completed.

Tests starting at C1 no longer necessary.

Note:
If customer complaint is not yet remedied, then check for further possible faults in the fuel system, or engine not mecanically O.K.

No primary voltage/no ignition spark.

(Continued from B4/B5)

Yes

Test trigger box voltage supply.
Remove trigger-box plug.
Connect voltmeter to trigger-box plug between term. 1 and ground.
Switch on ignition.
Voltmeter must indicate battery voltage.

Voltage correct?

No → Check for open circuit in cables and terminals from ignition and starting switch to trigger-box plug term. 1 including ground. Eliminate open circuit.

Yes

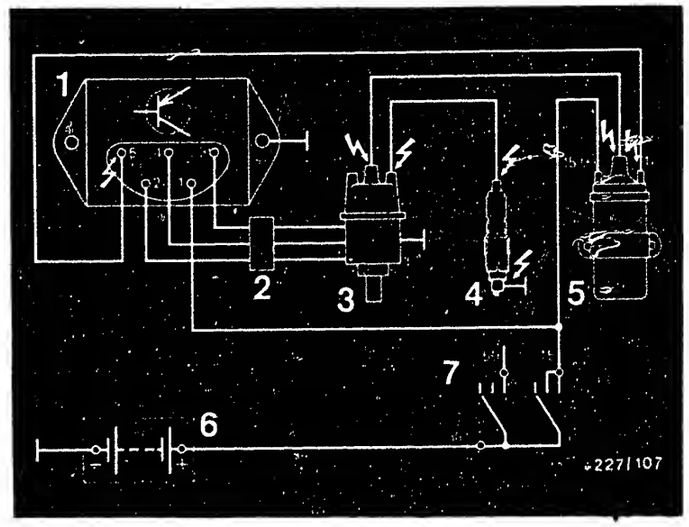
Test primary circuit.
Connect voltmeter to disconnected trigger-box plug between term. 5 and ground.
Switch on ignition.
Voltmeter must indicate battery voltage.

Voltage correct?

No → Check for open circuit in cable from ignition and starting switch to ignition coil term. 15, primary winding of ignition coil as well as cable from ignition coil term. 1 to trigger-box plug term. 5 including ground. Eliminate open circuit.

Yes

Continued on C 3/4



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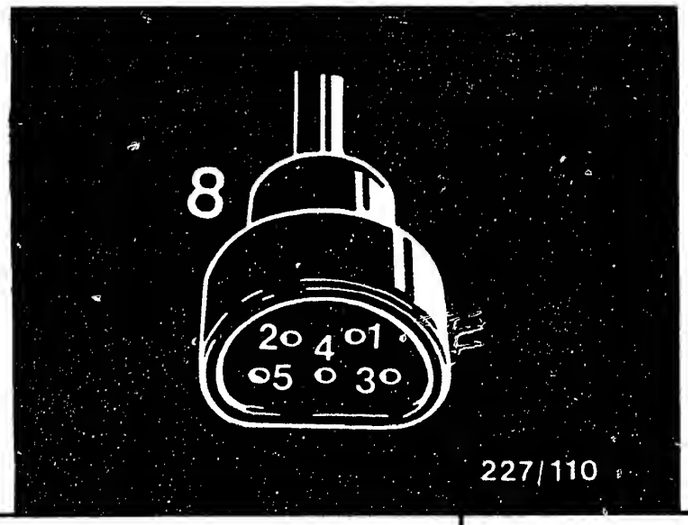
5 = Ignition coil
6 = Battery
7 = Ignition and starting switch
8 = Trigger box plug

⚡ = Dangerous voltages (400 V - 25 kV)



Yes

Test ignition coil.

Ignition coil primary (term. 15 and 1)
1.4...2.7 Ω (take resistance of test lead with test prods into account).
Ignition coil secondary (term. 1 and 4)
approx. 5.0...14.0 kΩ.

Resistance values O.K.?

No → Replace ignition coil.

Yes

Continued on C 5/6

Yes

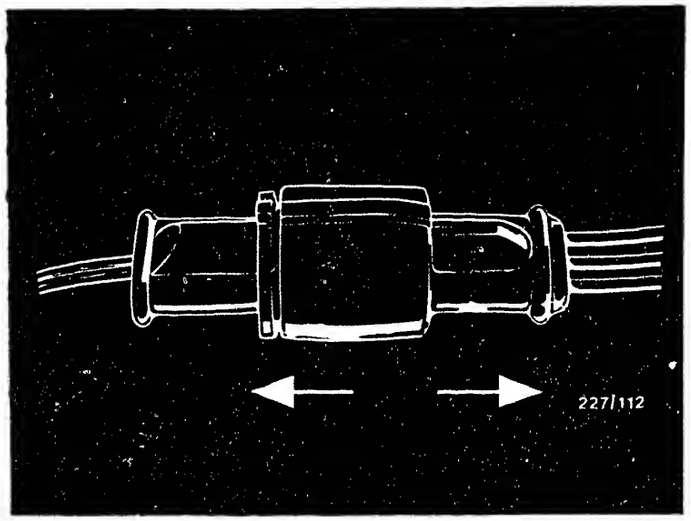
Check the ignition distributor and the vane-switch lead.
Pull the ignition-distributor connector plug from the socket (See picture above).
Connect the ohmmeter to the following terminal pairs one after the other:

Trigger-box plug		Ignition-distributor connector plug
Term. 2	and	Term. 2
Term. 3	and	Term. 3
Term. 4	and	Term. 4

In each case, the ohmmeter must register 0 Ω (Straight-through reading).

Straight-through reading (0 Ω) in the vane-switch lead?

No → Remove open-circuit

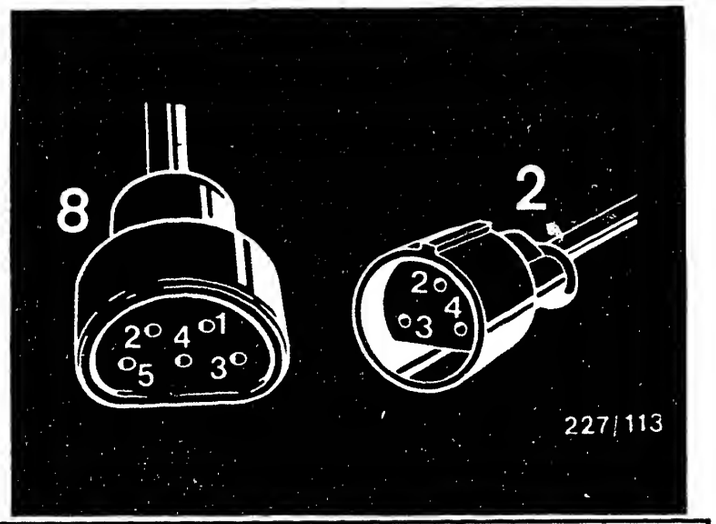


Plug connection
Ignition distributor - trigger box

Yes

Continued on C 7/8

2 = Plug connection - trigger box side
8 = Trigger box plug



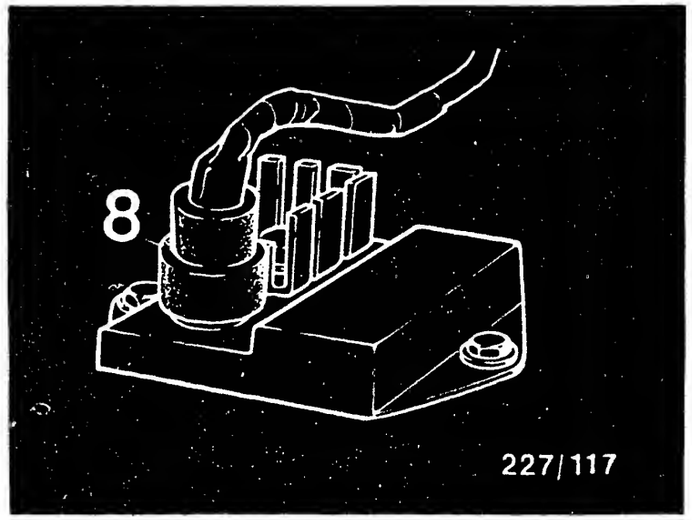
Yes

Test the pulse generator voltage supply.
Plug together the plug connector between ignition distributor and trigger box.
Plug on the trigger-box plug.
Connect voltmeter with test prods to trigger-box side of plug connector Term. 2 (+) and vehicle ground (-) (pierce cable insulation with test prod - see bottom picture).
Switch on ignition.
Measured voltage must be no more than 3 V below battery voltage.
Voltage correct?

No → Replace trigger box

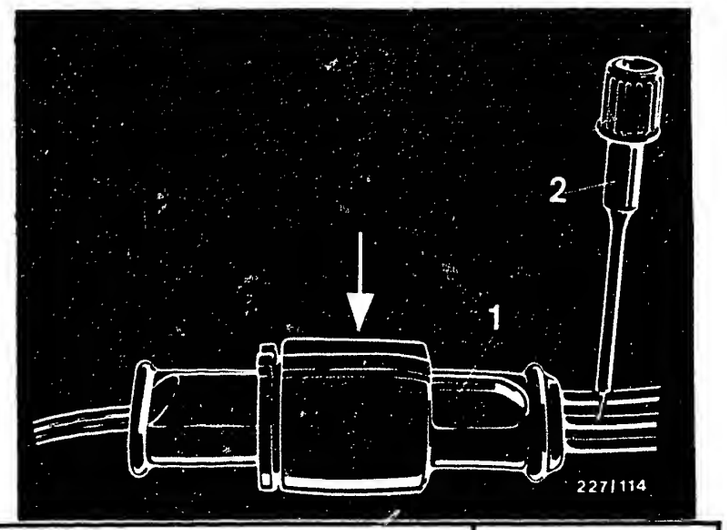
Yes

Continued on C9/C10



8 = Trigger-box plug plugged onto trigger box.

1 = Trigger-box side of plug connector
2 = Test prod



Yes

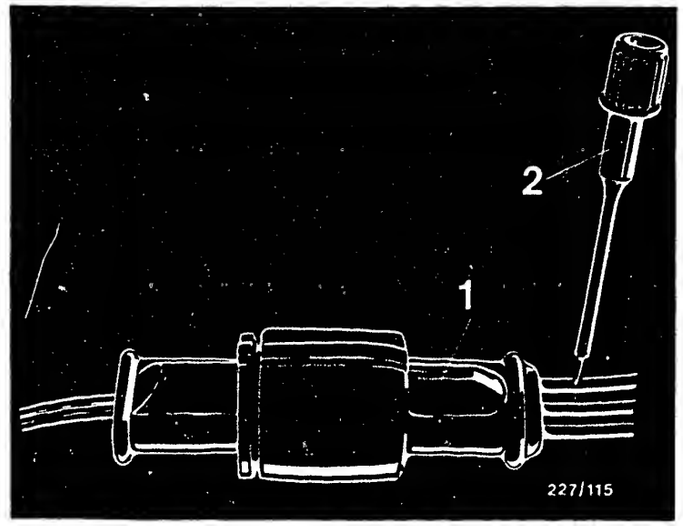
Test the pulse generator.
Connect oscilloscope as per operating instructions with program switch in "special" position.
For example, MOT 201:
Red clip with test prod to trigger-box side of plug connector Term. 3 (pierce insulation with test prod, see top picture).
Black clip to vehicle ground.
Start engine.
The oscilloscope must show a rectangular pulse. See bottom picture.
Rectangular pulse present?

No → Replace pulse generator, and/or ignition distributor.

Yes

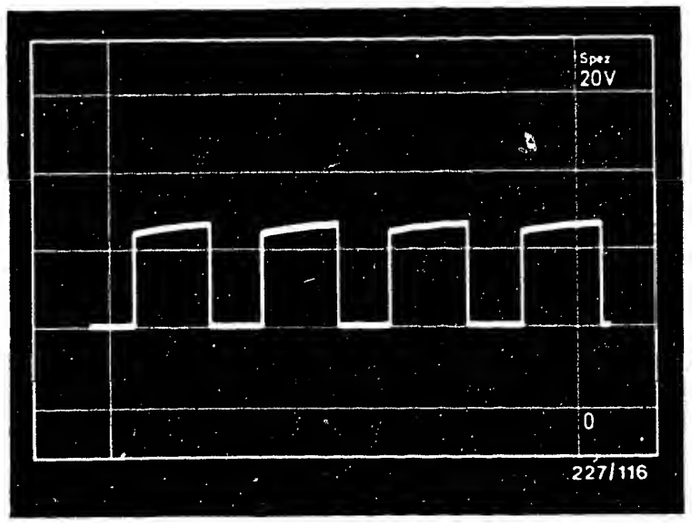
Replace trigger box.
Testing completed.
Tests from B7 not necessary.

Note:
If customer complaint is still not remedied, then the fault may lie with the fuel system, or the engine is not mechanically O.K.



1 = Trigger-box side of plug connector
2 = Test prod

Rectangular voltage



After-sales Service

Technical Bulletin

Danger of Accident on Semi-conductor Ignition Systems

VDT-I-227/102 B

11.1976

Please be sure to pass this bulletin on to your employees for their attention.

The increased demands made on their ignition systems by modern engines, and the wish for freedom from maintenance, led some time ago to manufactures starting to equip their vehicles with semi-conductor ignition systems as original equipment. In most cases the performance of nearly all makes of such systems is higher than that of conventional systems, and further improvements are to be expected. This means that semi-conductor ignition systems have reached the point where contact with "live" parts or contacts (whether on the primary side or the secondary side) can prove fatal.

In this connection we should like to point out to you that the laws valid in your country regarding work on high-voltage systems must be adhered to when working on, or testing, semi-conductor ignition systems.

As a matter of principle, when working on such ignition systems the ignition is to be switched off. Included in such work are the following operations:

- Connection of engine testing equipment (timing light, dwell-tach tester, ignition oscilloscope etc.).
- Replacement of ignition system parts (spark plugs, ignition coil, ignition distributor, H.T. ignition cables etc.).

If it is necessary to switch on the ignition in order to test the system or make adjustments on the engine (to the carburetor for instance), then lethal voltages are present throughout the entire system.

This means that the danger of accident exists not only at individual components in the system (e.g. ignition distributor, ignition coil, trigger box, ignition harness), but also at the wiring harness (e.g. connection for the tachometer, diagnostic connector), on terminals, and on test equipment.

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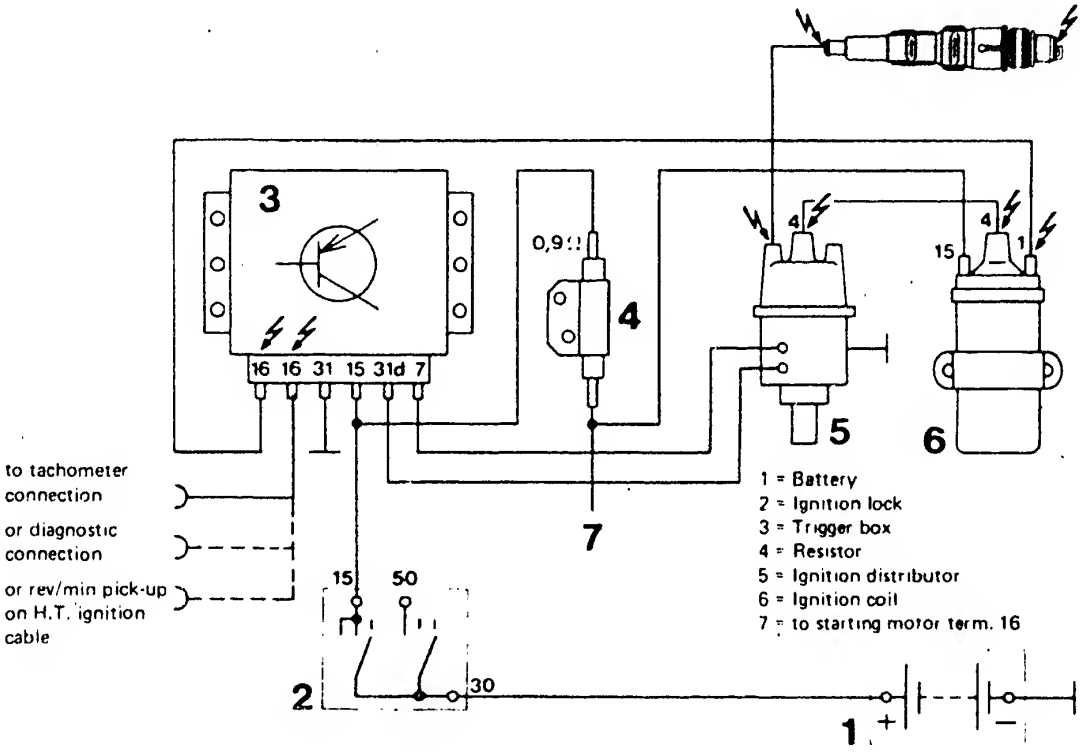
In addition, in the case of the capacitor-discharge ignition system (CDi), danger of accident is also present under the following circumstances:

- Operation of the trigger box without the ignition transformer.
- At the trigger box, (removed), relatively soon after it has been switched off (capacitor discharge).

Below is a typical terminal diagram of a semi-conductor ignition system, the danger points are marked with red high-voltage arrows. We would point out that all semi-conductor ignition systems, even the older ones, are to be regarded as dangerous in the sense as defined by this bulletin.

Please address any queries or comments concerning the contents of this publication to our representative in your country.



Terminal diagram

After-sales Service

Technical Bulletin

EFFECTS OF ELECTRICAL AND ELECTRONIC SYSTEMS ON HEART PACEMAKERS

e.g. ignition systems, Jetronic, Motronic, ABS

VDT-I-227/107 En
1.1981

Please ensure without fail that this Bulletin is passed on to your employees for their attention!

We have often been asked by some of our customers whether or not patients with heart pacemakers are endangered in any way by ignition systems. This theme was recently the subject of an examination carried out by the Ignition System Development Department of Robert Bosch GmbH in conjunction with Dr. Thull, lecturer at the Central Institute for Biomedical Technology at the University of Erlangen-Nürnberg and Biotronic GmbH & Co. of Berlin, a manufacturer of heart pacemakers. The magazine "Biomedizinischen Technik" (5/80) listed the results.

The most important discoveries in this practice can be summarized from the examination report as follows:-

1. Heart pacemakers corresponding to the latest state of the art are not affected by radiation (electromagnetic fields) from ignition systems.
2. With a stationary engine and the ignition switched off the heart pacemaker is not affected by any part of the ignition system, even when unintentionally touched. Maintenance work in the engine compartment, for example, can then be carried out without any danger.
3. With the engine running or stationary with the ignition switched on, touching current-carrying parts of the ignition system, as well as parts of any other electrical system, presents a certain danger for everybody. The heart pacemaker can here be affected under certain conditions (voltage, current and frequency).
   Patients with heart pacemakers should therefore at all costs avoid touching current-carrying parts of electrical systems.
4. Furthermore, patients with heart pacemakers are more inclined to psychic shock effects than other people, even when they receive just a harmless electric shock, because many such patients are conscious of the increased danger to the cardiac activity.

We therefore consider it inadvisable for patients with heart pacemakers to be employed in workshops or on vehicles where ignition systems are being tested or repaired. If any members of your staff have heart pacemakers please carry out the necessary measures.

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We would like to add that heart pacemakers are not expected to be affected in any way by interference from other electronic products and systems which we manufacture, such as the Antiskid System (ABS), Jetronic, Motronic, because the much greater radiation intensity of the ignition systems examined in normal use has not caused any interference to heart pacemakers corresponding to the latest state of the art.

If you should receive questions on this matter from customers, please inform them accordingly.

After-sales Service

Technical Bulletin

NEW DESIGNATIONS FOR IGNITION SYSTEMS

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5.1981

The introduction of new ignition systems has made it necessary to reclassify all designations.
The designations listed below will be used immediately in KH workshops and in sales literature.

Designation	Abbreviated code	Meaning	Switching part	Ignition control and spark advance	High-voltage distribution
Coil ignition	SZ (CI)	-------	mechanical (breaker points)	mechanical (ignition distributor)	mechanical (ignition distributor)
Transistorized coil ignition	TSZ-k (TCI-c)	k=breaker-triggered	electronic (trigger box)	mechanical (ignition distributor)	mechanical (ignition distributor)
Trigger box with traditional switching techniques	TSZ-I* (TCI-i)	I=induction type pulse generator	electronic (trigger box)	mechanical (ignition distributor)	mechanical (ignition distributor)
	TSZ-H (TCI-h)	H=Hall generator	electronic (trigger box)	mechanical ignition distributor)	mechanical (ignition distributor)
Transistorized ignition	TZ-I* (TI-i)	I=induction type pulse generator	electronic (trigger box)	mechanical (ignition distributor)	mechanical (ignition distributor)
(Trigger box in hybrid technique)	TZ-H* (TI-h)	H=Hall generator	electronic (trigger box)	mechanical (ignition distributor)	mechanical (ignition distributor)

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Designation	Abbreviated code	Meaning	Switching part	Ignition control and spark advance	High-voltage distribution
Electronic ignition	EZ-L	L=characteristic curve	electronic (trigger box or control unit)	electronic (control unit)	mechanical (ignition distributor)
	EZ-F	F=ignition map	electronic (trigger box or control unit)	electronic (control unit)	mechanical (high-voltage distributor)
Distributorless semiconductor ignition	VZ-L	L=characteristic curve	electronic (control unit)	electronic (control unit)	electronic (two-spark ignition coil, or 1 ignition coil/spark plug)
	VZ-F	F=ignition map	electronic (control unit)	electronic (control unit)	electronic (two-spark ignition coil, or 1 ignition coil/spark plug

* Please note: The ignition system can additionally be fitted with a DLS unit (digital idle stabilizer) or with an ELS unit (electronic idle stabilizer) or with an ESV unit (electronic ignition retardation).

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Motor Vehicle Service Information

TESTS ON ELECTRONIC IGNITION SYSTEMS
(TCI, TZ)
TESTER INSTRUCTIONS

VDT-I-Gen.-035 En
3.1981

The following tests are listed in older and current Tester operating instructions or in Trouble-shooting with the oscillograph.:

- "Separate ignition coil test" (concerns EFAW 213, 214, 268, AE 2000).
- Calculating the "ignition voltage reserve" (concerns EFAW 213, 214, 268, AE 2000 and MOT series).
- "Intensified insulation test" (concerns EFAW 213, 214, 268, AE 2000 and MOT series).

Nowadays transistorized ignition systems deliver more than 30,000 V secondary voltage.

To avoid damage to ignition coil, ignition cable and ignition distributor by voltage flashovers, the tests listed above should not be carried out on transistorized ignition systems.

The contents of this Service Information has already been published in the K7-Information K7-VJF 17/8012.

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Please direct questions and comments concerning the contents to our authorized representative in your country.